

In the Abstract:

A method and apparatus for providing distributed communication routing includes a route computation engine operably coupled to a plurality of forwarding engines within a logically distributed router. Registration information is provided to the route computation processor by the forwarding engines, and the forwarding engines are recognized and identified by the route computation processor in response. The registration information includes information regarding interfaces or connections amongst the forwarding engines and external routers and other external destinations. The route computation processor provides control information to at least one of the plurality of forwarding engines for distributed routing maintenance and/or specific data forwarding operations. Distributed routing maintenance includes monitoring the status of the forwarding engines, while specific data forwarding operations include tunneling messages relayed to and from the route computation processor by the forwarding engines and packet formatting information that controls how the format of packets forwarded by a forwarding engine. ~~The interfaces between the route computation engine and the plurality of forwarding engines may be shared connections for scalability or separate connections that allow varying qualities of service to be provided for the control information.~~